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Serial No. 10/750,400  
Response to Official Action

**In the Drawing**

Please replace Figs. 1-5 of the drawings with the enclosed replacement and new sheets thereof, which include appropriate headings as required by 37 CFR 1.121(d) and suggested by the Examiner.

**Remarks**

By the foregoing Amendments, Claims 1, 6 and 7 are amended and claims 11-12 newly introduced. Claim 4 is cancelled without prejudice. Applicants respectfully submit that no new matter was added by the foregoing Amendments, as all the amended matter was supported, previously described or illustrated in the written specification, drawings and/or claims of the application as originally filed. Favorable consideration thereof is earnestly requested.

The Examiner has objected to the specification and drawings because of certain informalities therein. Such informalities in the specification, Abstract, and drawings were corrected by the foregoing Amendments. Applicants respectfully ask the Examiner to reconsider these objections.

Claims 1-10 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite because of certain deficiencies noted in the Office Action. By the foregoing Amendments, such deficiencies have been corrected in a manner satisfying the requirements under 35 U.S.C. 112, second paragraph. Accordingly, Applicants respectfully ask the Examiner to reconsider these rejections.

Claims 1-2 and 4 stand rejected under 35 U.S.C. 102(b) as being anticipated by Takakura, et al. (U.S. Patent No. 5,975,267), while Claims 3 and 5-10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the same reference, Takakura, et al. (U.S. Patent No. 5,975,267). Applicants respectfully ask the Examiner to reconsider these rejections in view of the foregoing Amendments and the below Remarks.

By the foregoing Amendments, independent Claim 1 has been amended to clarify and better highlight the novel aspects of the disc brake of the present application, which now includes all limitations of Claim 4, and Claim 4 has been cancelled.

Accordingly, Claim 1 as amended requires, among other elements, (i) that one or more brake pads are received in a pad holder, in which the brake disc and brake pads are axially moveable in relation to the caliper for braking operations, and (ii) that one or more wearing parts are placed in the calliper for contact with the brake lining of the brake disc during braking, while the pad holder is arranged on the side of the brake disc having no brake lining.

Applicants respectfully submit that Takakura, et al. fails to disclose, teach or suggest at least the above identified elements (i) and (ii) of the invention as claimed in claims 1-3 and 5-10.

In particular, Takakura et al. is not concerned with disc brakes, but instead is directed to a friction clutch of the kind incorporated into automatic transmission systems for motor vehicles, in which the clutch has a function and structure substantially different from the disc brake of the invention as claimed. Contrary to the disc brake of the invention, the function of such a clutch is for connecting and disconnecting by friction the rotation of automotive wheels with rotation of the vehicle engine. The friction clutch of Takakura et al. includes a hub 32 having a plurality of internally toothed discs 52 slideably arranged on the hub 32, and a drum 36 having a plurality of externally toothed discs 54 on the drum 36, wherein friction facings 56 are affixed only on one side of the discs 52 and 54 (see FIGS. 1, 3-4, and 8). However, Takakura et al. fails to disclose, teach or suggest the above element (i) that one or more brake pads are received in a pad holder, in which the brake disc and brake pads are axially moveable in relation to the caliper for braking operations. There is no such a pad holder disclosed or suggested in the Takakura et al. disclosure, which receives one or more brake pads therein that are moveable in relation to the caliper for braking operations. In Takakura et al., the discs 52 and 54 are moveably attached on the hub 32 and drum 36, respectively. However, none of these discs 52 and 54 are received in a pad holder and in a manner axially moveable for the braking operations.

Moreover, Takakura et al. further fails to disclose, teach or suggest the above element (ii) that one or more wearing parts are placed in the caliper for contact with the brake lining of the brake disc, while the pad holder being arranged on the side of the brake disc having no brake lining for the braking operations. In this regard, the Examiner has suggested in this Office Action that the wearing part is shown as “the last part to the right end attached to the caliper” in FIGS. 3 and 4 of Takakura et al. Applicants respectfully disagree, and submit that “the last part to the right end attached to the caliper” shown in FIGS. 3 and 4 is one of the externally toothed discs 54 affixed on the drum 36 (as shown in FIG. 8), which does not have friction facing 56 affixed thereto. See column 3, lines 11-14. This disc 54 cannot be regarded as a wearing part placed in the caliper for contact with the brake lining of the brake disc while the pad holder being arranged on the side of the brake disc having no brake lining for the braking operations. Accordingly, Applicants submit that Takakura et al. fails to disclose, suggest, or teach this element (ii) of the invention as claimed.

Furthermore, it is well settled that the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). It is also well settled that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). In the present case, Applicants respectfully submit that not only is there no motivation to modify Takakura, et al. to include the above identified elements of the invention (e.g., the brake pads received in the pad holder and moveable for braking operations, and the wearing parts placed in the caliper for contact with the brake lining of the brake disc),

but that such modifications would make the device of Takakura, et al. work less efficiently.

As discussed above, the present invention is directed to a disc brake system. In such a system, the wearing parts (among other elements of the claims) are advantageous so as to provide localized wearing surfaces, rather than allowing the caliper to wear. In this application, as the wearing parts become worn down, they can be easily replaced. For example, the wearing parts can be replaced as part of the routine maintenance of replacing the brake pads. Such routine maintenance is contemplated as part of operating disc brakes, and there is minimal additional burden involved with replacing the wearing parts.

However, Takakura, et al. is not concerned with disc brakes, but instead is directed to a friction clutch of the kind incorporated into automatic transmission systems. Applicants respectfully submit that it would be highly undesirable to incorporate wearing parts of the type claimed into such an automatic transmission system. Unlike disc brakes, automatic transmission systems do not require routine maintenance (e.g., the changing of brake pads). Moreover, it is difficult and labor intensive to disassemble such systems. As such, one skilled in the art would want to avoid the provision of wearing parts in such systems. Applicants, therefore, submit that not only is there no motivation provided to modify Takakura, et al. to include, among other elements, the wearing parts as particularly recited in the claims, but also that one skilled in the art would be taught against such a modification,

Furthermore, Takakura et al. is particularly concerned with minimizing the thickness of the discs 52, 54 forming the friction clutch mechanism, and of the entire assembly itself. However, if wearing parts (other than discs 52 and 54) were to be installed in the drum 36, the thickness of discs 52, 54 would have to be increased to

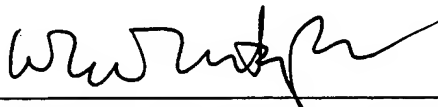
accommodate such wearing parts. Such an increase in thickness would be contrary to the teachings of the reference itself, and Applicants respectfully submit that one would not make such modifications, particularly in view of the complete absence of any motivation provided by the reference to make such a modification.

In view of the foregoing, Applicants respectfully submit that Claims 1-3 and 5-10 are patentable over the references of record. Newly added claims 11-12 are similar to Claim 1 as amended and include further limitations thereto, such as that the wearing parts be received in a recess of the calliper (Claim 11) and that the wearing parts be received in the recess of the calliper without being fixed to the calliper (Claim 12), neither of which limitations is disclosed or taught by Takakura et al.. These limitations are described, for example, at paragraph [00020] in the Specification. Therefore, Applicants respectfully submit that Claims 11-12 are also patentable over the references at least for the reasons that Claim 1 is patentable as discussed above.

For the foregoing reasons, Applicants respectfully submit that all pending claims, namely Claims 1-3 and 5-12, are patentable over the references of record, and earnestly solicits allowance of the same.

Respectfully submitted,

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